Recombinant TULP3 protein (His tag)

Catalog Number	544167
Synonyms	Tubby-like protein 3
Species	Human
Expression System	E. coli
Accession	O75386
Molecular Weight	Predictes a molecular mass of 31.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	182-442
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 182-442 aa (O75386) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This product is a recombinant fragment of human Tubby-related protein 3 (TULP3), spanning amino acids 182-442. It is designed as a stable and soluble unit ideal for structural studies and biochemical assays, particularly for researchers investigating ciliary signaling and G protein-coupled receptor trafficking. Tubby-related protein 3 (TULP3) is a key negative regulator of the Sonic hedgehog (Shh) signaling pathway. It associates with the IFT-A complex in primary cilia and facilitates the ciliary localization of GPR161, promoting PKA-dependent repression of Shh signaling. TULP3 binds phosphorylated inositide lipids, and both this lipid-binding ability and its interaction with IFT-A are essential for regulating ciliary GPCR trafficking, including roles in adipogenesis via FFAR4. The protein localizes to the nucleus, cell membrane, cytoplasm, and cilia, and it translocates from the plasma membrane to the nucleus upon Gq alpha activation. It lacks a cleavable signal peptide and is secreted via a non-conventional pathway.